CLAIMS

1. Optical device comprising :
   - a polymer film (101) comprising a first surface (107) and a second surface (108),
   - a first electrode (102) mapped on said first surface (107),
   - a second electrode (103) mapped on said second surface(108),
   - a deformable optical element (104) mapped on said first electrode (102) or on said first surface (107).

2. Optical device as claimed in claim 1, wherein said optical element (104) is a circular lens or a diffraction grating.

3. Optical device as claimed in claim 1 or 2, wherein said optical element (104) is made of silicone rubber or of cyclic olefin copolymer.

4. Optical device as claimed in claim 1, 2 or 3, wherein said polymer film (101) is made of silicone rubber or acrylic dielectric elastomer.

5. Optical device as claimed in claim 1, 2, 3 or 4, wherein said first electrode (102) and said second electrode (103) have the shape of a circle.

6. Optical device as claimed in claim 1, 2, 3 or 4, wherein said first electrode (102) and said second electrode (103) have the shape of a ring.

7. Polymer film (101) sandwiched between two electrodes (102, 103) intended to receive a voltage difference, for deforming an optical element (104) in contact with said polymer film (101) or said electrodes (102, 103) .

8. Method of changing the optical characteristics of an optical element (104), said method comprising the steps of :
   - mapping a first electrode (102) on a first surface (107) of a polymer film (101),

- mapping a second electrode (103) on a second surface (108) of said polymer film (101),
- mapping said optical element (104) on said first electrode (103) or on said first surface (107),
- applying a voltage difference between said first electrode (102) and said second electrode (103).